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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/972,949	10/10/2001	Ryutaro Oka	Q66636	4803
21171	7590	05/14/2004	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			SY, MARIANO ONG	
			ART UNIT	PAPER NUMBER
			3683	

DATE MAILED: 05/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/972,949

Applicant(s)

OKA, RYUTARO

Examiner

Mariano Sy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2004 and 26 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2-9 is/are pending in the application.
- 4a) Of the above claim(s) 8 and 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2 and 4-7 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. The amendments filed on April 19, 2004 and April 26, 2004 have been received.
2. Newly submitted claims 8 and 9 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the temperature sensor 13 does not contact the elastic member reads on second, third and fourth embodiments (fig. 3-7).

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 8 and 9 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 6 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 recites the limitation "the stationary bearing" in line 4. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 4, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nachtigal et al. (U.S. Patent Number 6,559,633 B1) in view of French et al. (U.S. Patent Number 6,161,962).

Re-claims 2 and 4 Nachtigal et al. discloses, as shown in fig. 1, a rolling bearing assembly having a speed sensor 30, said bearing assembly comprises: a stationary 4 and rotary 2 bearing rings one positioned inside the other; a sealing member 50 secured to the stationary bearing ring; and the sensor secured to the sealing member, wherein the sealing member includes a plate-like core metal 20 fitted to the stationary bearing ring, and an elastic member 52 made of one of rubber and resin and integrated together with the core metal and wherein the sensor is secured to a plate surface of the core metal in contact therewith; wherein the sensor is fixed to the sealing member by means of an integral molding of the elastic member with the metal core. However Nachtigal et al. fail to disclose a temperature sensor.

French et al. teaches bearing with sensor module B that may contain a speed 110, temperature 112, and acceleration sensor 114.

It would have been obvious to one of ordinary skill in the art to have utilized the known sensor module into the bearing assembly of Nachtigal et al., in view of the

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teaching of French et al., in order to detect the temperature in the interior of the bearing so as to detect bearing failure.

Re-claims 6 and 7 Nachtigal et al. discloses, as shown in fig. 1, a rolling bearing assembly including stationary 4 and rotary 2 bearing rings, one positioned inside the other, and a speed sensor 30, the rolling bearing assembly comprising: a sealing member 50 secured to the stationary bearing ring and comprising a core metal 20 and an elastic member 52 made of one of rubber and resin and integrated together with the core metal, the sensor contacting and being affixed to a plate surface (end surface of radial portion 24) of the core metal, wherein said sensor is integrally molded with the elastic member.

However Nachtigal et al. fail to disclose a temperature sensor.

French et al. teaches bearing with sensor module B that may contain a speed 110, temperature 112, and acceleration sensor 114.

It would have been obvious to one of ordinary skill in the art to have utilized the known sensor module into the bearing assembly of Nachtigal et al., in view of the teaching of French et al., in order to detect the temperature in the interior of the bearing so as to detect bearing failure.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nachtigal et al. in view of French et al. as applied to claim 2 above, and further in view of Gomez et al. (U.S. Patent Number 5,833,371).

Re-claim 5 Nachtigal et al. as modified was silent to disclose the temperature sensor 112 is a chip-type laminar thermistor. Gomez et al. teaches the use of thermistor as temperature sensor in col. 1, lines 35-36. It would have been obvious to one of ordinary skill in the art to have merely utilized the known thermistor for use as a temperature sensor into the bearing assembly of Nachtigal et al. as modified, in view of the teaching of Gomez et al., in order to get an accurate reading of the temperature inside the bearing depending upon the type of application, cost, and availability.

8. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Applicant's arguments filed on April 19, 2004 and April 26, 2004 have been fully considered but they are not persuasive.

Examiner maintains the rejection is proper. Nachtigal et al. '633 figure 1 can be read as the sensor 30 is secured to a plate surface (end surface of radial portion 24 still can be read as plate surface) of the core metal 20. French et al. '962 is merely used for the teaching of the known temperature sensor used in detecting temperature of a bearing. Applicant claim language is "comprising" and not "consisting". Applicant's argument is more specific than the claim language.

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10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mariano Sy whose telephone number is 703-308-3427. The examiner can normally be reached on Mon.-Fri. from 9:00 A.M. to 3:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder, can be reached on 703-308-3421. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic  
Business Center (EBC) at 866-217-9197 (toll-free).

*msy* M. Sy

May 11, 2004

*WCL*  
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